FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Colorado Bend I Power, LLC

AUTHORIZING THE OPERATION OF
Colorado Bend Energy Center
Fossil Fuel Electric Power Generation

LOCATED AT
Wharton County, Texas
Latitude 29° 17' 16" Longitude 96° 4' 6"
Regulated Entity Number: RN104772538

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site, emission units and affected source listed in this permit. Operations of the site, emission units and affected source listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site, emission units and affected source authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site, emission units and affected source.

Permit No: O2887 Issuance Date: January 18, 2018

For the Commission

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions:

Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:

    A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.

    B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

    C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

    D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.

E. Emission units subject to 40 CFR Part 63, Subpart ZZZZ as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.1090 which incorporates the 40 CFR Part 63 Subpart by reference.

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):

A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements

B. Title 30 TAC § 101.3 (relating to Circumvention)

C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ

D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ

E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)

F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)

G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)

H. Title 30 TAC § 101.221 (relating to Operational Requirements)

I. Title 30 TAC § 101.222 (relating to Demonstrations)

J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

(i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(1)(E)

(iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)

(iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive

ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the "Applicable Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

(1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.

(2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

(3) Records of all observations shall be maintained.

(4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity

requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

(c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.

C. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:

(i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)

(ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)

(iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:

A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)

B. Title 40 CFR § 60.8 (relating to Performance Tests)

C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)

D. Title 40 CFR § 60.12 (relating to Circumvention)

E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)

F. Title 40 CFR § 60.14 (relating to Modification)

G. Title 40 CFR § 60.15 (relating to Reconstruction)

H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

5. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

Additional Monitoring Requirements

6. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

7. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:

   A. Are incorporated by reference into this permit as applicable requirements

   B. Shall be located with this operating permit

   C. Are not eligible for a permit shield

8. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.

9. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

10. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing

required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.

11. Use of Discrete Emission Credits to comply with the applicable requirements:

    A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:

        (i) Title 30 TAC Chapter 115

        (ii) Title 30 TAC Chapter 117

        (iii) If applicable, offsets for Title 30 TAC Chapter 116

        (iv) Temporarily exceed state NSR permit allowables

    B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:

        (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)

        (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4

        (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)

        (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

        (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Permit Location

12. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Permit Shield (30 TAC § 122.148)

13. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Acid Rain Permit Requirements

14. For units CTDB1-A, CTDB1-B, CTDB2-A and CTDB2-B (identified in the Certificate of Representation as units CT1A, CT1B, CT2A and CT2B), located at the affected source identified by ORIS/Facility code 56350, the designated representative and the owner or operator, as applicable, shall comply with the following Acid Rain Permit requirements.

A. General Requirements

(i) Under 30 TAC § 122.12(1) and 40 CFR Part 72, the Acid Rain Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP) and have an independent public comment process which may be separate from, or combined with the FOP.

(ii) The owner and operator shall comply with the requirements of 40 CFR Part 72 and 40 CFR Part 76. Any noncompliance with the Acid Rain Permit will be considered noncompliance with the FOP and may be subject to enforcement action.

(iii) The owners and operators of the affected source shall operate the source and the unit in compliance with the requirements of this Acid Rain Permit and all other applicable State and federal requirements.

(iv) The owners and operators of the affected source shall comply with the General Terms and Conditions of the FOP that incorporates this Acid Rain Permit.

(v) The term for the Acid Rain permit shall commence with the issuance of the FOP that incorporates the Acid Rain permit and shall be run concurrent with the remainder of the term of the FOP. Renewal of the Acid Rain permit shall coincide with the renewal of the FOP that incorporates the Acid Rain permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

B. Monitoring Requirements

(i) The owners and operators, and the designated representative, of the affected source and each affected unit at the source shall comply with the monitoring requirements contained in 40 CFR Part 75.

(ii) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 and any other credible evidence shall be used to determine compliance by the affected source with the acid rain emissions limitations and emissions reduction requirements for SO_2 and NO_x under the ARP.

(iii) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emission of other pollutants or other emissions characteristics at the unit under other applicable requirements of the FCAA Amendments (42 U.S.C. 7401, as amended November 15, 1990) and other terms and conditions of the operating permit for the source.

C. SO_2 emissions requirements

(i) The owners and operators of each source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for SO_2.

(ii) As of the allowance transfer deadline the owners and operators of the affected source and each affected unit at the source shall hold, in the unit's compliance subaccount, allowances in an amount not less than the total annual emissions of SO_2 for the previous calendar year.

(iii) Each ton of SO_2 emitted in excess of the acid rain emissions limitations for SO_2 shall constitute a separate violation of the FCAA amendments.

(iv) An affected unit shall be subject to the requirements under (i) and (ii) of the SO_2 emissions requirements as follows:

(1) Starting January 1, 2000, an affected unit under 40 CFR § 72.6(a)(2); or

(2) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 40 CFR § 72.6(a)(3).

(v) Allowances shall be held in, deducted from, or transferred into or among Allowance Tracking System accounts in accordance with the requirements of the ARP.

(vi) An allowance shall not be deducted, for compliance with the requirements of this permit, in a calendar year before the year for which the allowance was allocated.

(vii) An allowance allocated by the EPA Administrator or under the ARP is a limited authorization to emit SO_2 in accordance with the ARP. No provision of the ARP, Acid Rain permit application, this Acid Rain Permit, or an exemption under 40 CFR §§ 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(viii) An allowance allocated by the EPA Administrator under the ARP does not constitute a property right.

D. NO_x Emission Requirements

(i) The owners and operators of the source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for NO_x under 40 CFR Part 76.

E. Excess emissions requirements for SO_2 and NO_x.

(i) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.

(ii) If an affected source has excess emissions in any calendar year shall, as required by 40 CFR Part 77:

(1) Pay, without demand, the penalty required and pay, upon demand, the interest on that penalty.

(2) Comply with the terms of an approved offset plan.

F. Recordkeeping and Reporting Requirements

(i) Unless otherwise provided, the owners and operators of the affected source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the EPA Administrator.

(1) The certificate of representation for the designated representative for the source and each affected unit and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR § 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative.

(2) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping (rather than a five-year period cited in 30 TAC § 122.144), the 3-year period shall apply.

(3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the ARP or relied upon for compliance certification.

(4) Copies of all documents used to complete an acid rain permit application and any other submission under the ARP or to demonstrate compliance with the requirements of the ARP.

(ii) The designated representative of an affected source and each affected unit at the source shall submit the reports required under the ARP including those under 40 CFR Part 72, Subpart I and 40 CFR Part 75.

G. Liability

(i) Any person who knowingly violates any requirement or prohibition of the ARP, a complete acid rain permit application, an acid rain permit, or a written exemption under 40 CFR §§ 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to FCAA § 113(c).

(ii) Any person who knowingly makes a false, material statement in any record, submission, or report under the ARP shall be subject to criminal enforcement pursuant to FCAA § 113(c) and 18 U.S.C. 1001.

(iii) No permit revision shall excuse any violation of the requirements of the ARP that occurs prior to the date that the revision takes effect.

(iv) The affected source and each affected unit shall meet the requirements of the ARP contained in 40 CFR Parts 72 through 78.

(v) Any provision of the ARP that applies to an affected source or the designated representative of an affected source shall also apply to the owners and operators of such source and of the affected units at the source.

(vi) Any provision of the ARP that applies to an affected unit (including a provision applicable to the DR of an affected unit) shall also apply to the owners and

operators of such unit. Except as provided under 40 CFR § 72.44 (Phase II repowering extension plans) and 40 CFR § 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR §§ 75.16, 75.17, and 75.18), the owners and operators and the DR of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the DR and that is located at a source of which they are not owners or operators or the DR.

(vii) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or DR of such source or unit, shall be a separate violation of the FCAA Amendments.

H. Effect on other authorities. No provision of the ARP, an acid rain permit application, an acid rain permit, or an exemption under 40 CFR §§ 72.7 or 72.8 shall be construed as:

(i) Except as expressly provided in Title IV of the FCAA Amendments, exempting or excluding the owners and operators and, to the extent applicable, the DR of an affected source or affected unit from compliance with any other provision of the FCAA Amendments, including the provisions of Title I of the FCAA Amendments relating to applicable National Ambient Air Quality Standards or State Implementation Plans.

(ii) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the FCAA Amendments.

(iii) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law.

(iv) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(v) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

I. The number of SO_2 allowances allocated by the EPA in 40 CFR Part 73 is enforceable only by the EPA Administrator.

Cross-State Air Pollution Rule (CSAPR) Trading Program Requirements

15. For units CTDB1 A, CTDB1 B, CTDB2 A and CTDB2 B (identified in the Certificate of Representation as units CT1A, CT1B, CT2A and CT2B), located at the site identified by Plant code/ORIS/Facility code 56350, the designated representative and the owner or operator, as applicable, shall comply with the following CSAPR requirements.

A. General Requirements

(i) The owners and operators of the CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall operate the source and the unit in compliance with the requirements of the CSAPR NO_x Ozone Season Group 2 Trading Program and all other applicable State and federal requirements.

(ii) The owners and operators of the CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall comply with the requirements of 40 CFR Part 97, Subpart EEEEE for CSAPR NO_x Ozone Season Group 2 Trading Program, and with the General Terms and Conditions of the Federal Operating Permit (FOP) that incorporates the CSAPR requirements.

B. Description of CSAPR Monitoring Provisions

(i) The CSAPR subject unit(s), and the unit-specific monitoring provisions at this source, are identified in the following paragraph(s). These unit(s) are subject to the requirements for the CSAPR NO_x Ozone Season Group 2 Trading Program.

(1) For units CTDB1 A, CTDB1 B, CTDB2 A and CTDB2 B, the owners and operators shall comply with the continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR Part 75, Subpart H for NO_x, and with the excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR Part 75, Appendix D for heat input.

(ii) The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR §§ 97.830 through 97.835 (CSAPR NO_x Ozone Season Group 2 Trading Program). The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable CSAPR trading program.

(iii) Owners and operators must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR §§ 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website at https://www.epa.gov/airmarkets/clean-air-markets-monitoring-plans-part-75-sources.

(iv) Owners and operators that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR Part 75, Subpart E and 40 CFR § 75.66 and § 97.835 (CSAPR NO_x Ozone Season Group 2 Trading Program). The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at https://www.epa.gov/airmarkets/part-75-petition-responses.

(v) Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR §§ 97.830 through 97.834 (CSAPR NO_x Ozone Season Group 2 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR § 75.66 and § 97.835 (CSAPR NO_x Ozone Season Group 2 Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on the EPA's website at https://www.epa.gov/airmarkets/part-75-petition-responses.

(vi) The descriptions of monitoring applicable to the unit(s) included above meet the requirement of 40 CFR §§ 97.830 through 97.834 (CSAPR NO_x Ozone Season Group 2 Trading Program), and therefore procedures for minor permit revisions, in accordance with 30 TAC § 122.217, may be used to add or change this unit's monitoring system description.

16. CSAPR NO_x Ozone Season Group 2 Trading Program Requirements (40 CFR § 97.806)

A. Designated representative requirements

(i) The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR §§ 97.813 through 97.818.

B. Emissions monitoring, reporting, and recordkeeping requirements

(i) The owners and operators, and the designated representative, of each CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR § 97.830 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), § 97.831 (initial monitoring system certification and recertification procedures), § 97.832 (monitoring system out-of-control periods), § 97.833 (notifications concerning monitoring), § 97.834 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and § 97.835 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

(ii) The emissions data determined in accordance with 40 CFR § 97.830 through § 97.835 and any other credible evidence shall be used to calculate allocations of CSAPR NO_x Ozone Season Group 2 allowances under 40 CFR §§ 97.811 (a)(2) and (b) and § 97.812 and to determine compliance with the CSAPR NO_x Ozone Season Group 2 emissions limitation and assurance provisions under paragraph C. below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR §§ 97.830 through 97.835 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

C. NO_x emissions requirements

(i) CSAPR NO_x Ozone Season Group 2 emissions limitation

(1) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, CSAPR NO_x Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR § 97.824 (a) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Ozone Season Group 2 units at the source.

(2) If total NO_x emissions during a control period in a given year from the CSAPR NO_x Ozone Season Group 2 units at a CSAPR NO_x Ozone Season Group 2 source are in excess of the CSAPR NO_x Ozone Season Group 2 emissions limitation set forth in paragraph C.(i)(1) above, then:

(a) The owners and operators of the source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall hold the CSAPR

NO_x Ozone Season Group 2 allowances required for deduction under 40 CFR § 97.824 (d); and

(b) The owners and operators of the source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart EEEEE and the Clean Air Act.

(ii) CSAPR NO_x Ozone Season Group 2 assurance provisions

(1) If total NO_x emissions during a control period in a given year from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR § 97.825 (a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR § 97.825 (b), of multiplying -

(a) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and

(b) The amount by which total NO_x emissions from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state for such control period exceed the state assurance level.

(2) The owners and operators shall hold the CSAPR NO_x Ozone Season Group 2 allowances required under paragraph C.(ii)(1) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

(3) Total NO_x emissions from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state NO_x Ozone Season Group 2 trading budget under 40 CFR § 97.810 (a) and the state's variability limit under 40 CFR § 97.810 (b).

(4) It shall not be a violation of 40 CFR Part 97, Subpart EEEEE or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the CSAPR NO_x Ozone Season Group 2 units at CSAPR NO_x Ozone Season Group 2 sources in the state during a control period exceeds the common designated representative's assurance level.

(5) To the extent the owners and operators fail to hold CSAPR NO_x Ozone Season Group 2 allowances for a control period in a given year in accordance with paragraphs C.(ii)(1) through (3) above,

(a) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(b) Each CSAPR NO_x Ozone Season Group 2 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs C.(ii)(1) through (3) above and each day of such control period shall constitute a separate violation of 40 CFR Part 97, Subpart EEEEE and the Clean Air Act.

(iii) Compliance periods

(1) A CSAPR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph C.(i) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 97.830 (b) and for each control period thereafter.

(2) A CSAPR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph C.(ii) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 97.830 (b) and for each control period thereafter.

(iv) Vintage of allowances held for compliance

(1) A CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraph C.(i)(1) above for a control period in a given year must be a CSAPR NO_x Ozone Season Group 2 allowance that was allocated for such control period or a control period in a prior year.

(2) A CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs C.(i)(2)(a) and (ii)(1) through (3) above for a control period in a given year must be a CSAPR NO_x Ozone Season Group 2 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

(v) Allowance Management System requirements. Each CSAPR NO_x Ozone Season Group 2 allowance shall be held in, deducted from, or transferred into, out of, or

between Allowance Management System accounts in accordance with 40 CFR Part 97, Subpart EEEEE.

(vi) Limited authorization. A CSAPR NO_x Ozone Season Group 2 allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:

(1) Such authorization shall only be used in accordance with the CSAPR NO_x Ozone Season Group 2 Trading Program; and

(2) Notwithstanding any other provision of 40 CFR Part 97, Subpart EEEEE, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

(vii) Property right. A CSAPR NO_x Ozone Season Group 2 allowance does not constitute a property right.

D. FOP revision requirements

(i) No FOP revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Ozone Season Group 2 allowances in accordance with 40 CFR Part 97, Subpart EEEEE.

(ii) This FOP incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR §§ 97.830 through 97.835, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR Part 75, subpart H), an excepted monitoring system (pursuant to 40 CFR Part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR § 75.19), and an alternative monitoring system (pursuant to 40 CFR Part 75, subpart E). Therefore the Description of CSAPR Monitoring Provisions for CSAPR subject unit(s) may be added to, or changed, in this FOP using procedures for minor permit revisions in accordance with 30 TAC § 122.217.

E. Additional recordkeeping and reporting requirements

(i) Unless otherwise provided, the owners and operators of each CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(1) The certificate of representation under 40 CFR § 97.816 for the designated representative for the source and each CSAPR NO_x Ozone Season Group 2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR § 97.816 changing the designated representative.

(2) All emissions monitoring information, in accordance with 40 CFR Part 97, Subpart EEEEE.

(3) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Ozone Season Group 2 Trading Program.

(ii) The designated representative of a CSAPR NO_x Ozone Season Group 2 source and each CSAPR NO_x Ozone Season Group 2 unit at the source shall make all submissions required under the CSAPR NO_x Ozone Season Group 2 Trading Program, except as provided in 40 CFR § 97.818. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under 30 TAC § 122.165.

F. Liability

(i) Any provision of the CSAPR NO_x Ozone Season Group 2 Trading Program that applies to a CSAPR NO_x Ozone Season Group 2 source or the designated representative of a CSAPR NO_x Ozone Season Group 2 source shall also apply to the owners and operators of such source and of the CSAPR NO_x Ozone Season Group 2 units at the source.

(ii) Any provision of the CSAPR NO_x Ozone Season Group 2 Trading Program that applies to a CSAPR NO_x Ozone Season Group 2 unit or the designated representative of a CSAPR NO_x Ozone Season Group 2 unit shall also apply to the owners and operators of such unit.

G. Effect on other authorities

(i) No provision of the CSAPR NO_x Ozone Season Group 2 Trading Program or exemption under 40 CFR § 97.805 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_x Ozone Season Group 2 source or CSAPR NO_x Ozone Season Group 2 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Applicable Requirements Summary

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
CTDB1-A	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	30TAC-R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
CTDB1-B	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	30TAC-R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
CTDB2-A	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	30TAC-R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
CTDB2-B	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	30TAC-R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
FWP1	SRIC ENGINES	N/A	60IIII	40 CFR Part 60, Subpart IIII	No changing attributes.
FWP1	SRIC ENGINES	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GRPCTDB	STATIONARY TURBINES	CTDB1-A, CTDB1-B, CTDB2-A, CTDB2-B	60KKKK	40 CFR Part 60, Subpart KKKK	No changing attributes.
GRPEG	SRIC ENGINES	EG1, EG2	60IIII	40 CFR Part 60, Subpart IIII	No changing attributes.
GRPEG	SRIC ENGINES	EG1, EG2	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
CTDB1-A	EP	30TAC-R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
CTDB1-B	EP	30TAC-R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
CTDB2-A	EP	30TAC-R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
CTDB2-B	EP	30TAC-R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
FWP1	EU	60IIII	CO	40 CFR Part 60, Subpart IIII	§ 60.4205(c)-Table 4 § 60.4206 § 60.4207(b) § 60.4211(b)	Owners and operators of emergency stationary fire pump CI ICE with a maximum engine power greater than or equal to 130	None	None	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.4211(b)(1) [G]§ 60.4211(f) § 60.4218	KW and less than or equal to 560 KW and a displacement of less than 30 liters per cylinder and is a 2008 model year or earlier must comply with a CO emission limit of 3.5 g/KW-hr, as listed in Table 4 to this subpart.			
FWP1	EU	60IIII	NMHC and NO_X	40 CFR Part 60, Subpart IIII	§ 60.4205(c)-Table 4 § 60.4206 § 60.4207(b) § 60.4211(b) § 60.4211(b)(1) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary fire pump CI ICE with a maximum engine power greater than or equal to 130 KW and less than or equal to 560 KW and a displacement of less than 30 liters per cylinder and is a 2008 model year or earlier must comply with an NMHC+NOx emission limit of 10.5 g/KW-hr, as listed in Table 4 to this subpart.	None	None	[G]§ 60.4214(d)
FWP1	EU	60IIII	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(c)-Table 4 § 60.4206 § 60.4207(b) § 60.4211(b) § 60.4211(b)(1) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary fire pump CI ICE with a maximum engine power greater than or equal to130 KW and less than or equal to 560 KW and a displacement of less than 30 liters per cylinder and is a 2008 model year or earlier must comply with a PM emission limit of 0.54 g/KW-hr, as listed in Table 4 to this subpart.	None	None	[G]§ 60.4214(d)
FWP1	EU	63ZZZZ	112(B)	40 CFR Part 63,	§ 63.6590(c)	Stationary RICE subject to	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
			HAPS	Subpart ZZZZ		Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines as applicable. No further requirements apply for such engines under this part.			
GRPCTDB	EU	60KKKK	NO_X	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4320(b) § 60.4325 § 60.4333(a) § 60.4333(b)(2) § 60.4335(b)(1) [G]§ 60.4345	New, modified, or reconstructed turbine firing natural gas with a heat input at peak load > 850 MMBtu/h must meet the nitrogen oxides emission standard of 15 ppm at 15 percent O_2.	§ 60.4335(b)(1) [G]§ 60.4345 § 60.4350(a) § 60.4350(b) § 60.4350(c) § 60.4350(d) § 60.4350(e) § 60.4350(f) § 60.4350(h) [G]§ 60.4400(a) § 60.4400(b) § 60.4400(b)(1) § 60.4400(b)(2) § 60.4400(b)(4) § 60.4400(b)(5) § 60.4400(b)(6) [G]§ 60.4405	[G]§ 60.4345 § 60.4350(b)	§ 60.4333(b)(2) [G]§ 60.4345 § 60.4350(d) § 60.4375(a) § 60.4380 [G]§ 60.4380(b) § 60.4395
GRPCTDB	EU	60KKKK	SO_2	40 CFR Part 60, Subpart KKKK	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in	§ 60.4365 § 60.4365(b) § 60.4415(a) § 60.4415(a)(1) § 60.4415(a)(1)(ii)	§ 60.4365(b)	§ 60.4375(a)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						excess of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.			
GRPEG	EU	60IIII	CO	40 CFR Part 60, Subpart IIII	§ 60.4205(a)-Table 1 § 60.4206 § 60.4207(b) § 60.4211(b) § 60.4211(b)(1) § 60.4211(f)(1) § 60.4211(f)(2)(i) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and a displacement of less than 10 liters per cylinder and is a pre-2007 model year must comply with a CO emission limit of 11.4 g/KW-hr, as listed in Table 1 to this subpart.	None	None	None
GRPEG	EU	60IIII	Hydrocarbons	40 CFR Part 60, Subpart IIII	§ 60.4205(a)-Table 1 § 60.4206 § 60.4207(b) § 60.4211(b) § 60.4211(b)(1) § 60.4211(f)(1) § 60.4211(f)(2)(i) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and a displacement of less than 10 liters per cylinder and is a pre-2007 model year must comply with an HC emission limit of 1.3 g/KW-hr, as listed in Table 1 to this subpart.	None	None	None
GRPEG	EU	60IIII	NO_X	40 CFR Part 60, Subpart IIII	§ 60.4205(a)-Table 1 § 60.4206 § 60.4207(b) § 60.4211(b) § 60.4211(b)(1)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 37 KW and a	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.4211(f)(1) § 60.4211(f)(2)(i) § 60.4218	displacement of less than 10 liters per cylinder and is a pre-2007 model year must comply with a NOx emission limit of 9.2 g/KW-hr, as listed in Table 1 to this subpart.			
GRPEG	EU	60IIII	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(a)-Table 1 § 60.4206 § 60.4207(b) § 60.4211(b) § 60.4211(b)(1) § 60.4211(f)(1) § 60.4211(f)(1)(i) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and a displacement of less than 10 liters per cylinder and is a pre-2007 model year must comply with a PM emission limit of 0.54 g/KW-hr, as listed in Table 1 to this subpart.	None	None	None
GRPEG	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines as applicable. No further requirements apply for such engines under this part.	None	None	None

Additional Monitoring Requirements

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: CTDB1-A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: 30TAC-R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if an alternative fuel is fired, either alone or in combination with the specified fuel (pipeline quality) containing no more than 5.0 grams total sulfur per 100 scf.	
Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: CTDB1-B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: 30TAC-R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if an alternative fuel is fired, either alone or in combination with the specified fuel (pipeline quality) containing no more than 5.0 grams total sulfur per 100 scf.	
Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: CTDB2-A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: 30TAC-R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if an alternative fuel is fired, either alone or in combination with the specified fuel (pipeline quality) containing no more than 5.0 grams total sulfur per 100 scf.	
Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: CTDB2-B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: 30TAC-R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if an alternative fuel is fired, either alone or in combination with the specified fuel (pipeline quality) containing no more than 5.0 grams total sulfur per 100 scf.	
Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	

Permit Shield

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
CTDB1-A	N/A	40 CFR Part 60, Subpart Db	Heat recovery steam generators and duct burners regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of subparts Da, Db, and Dc of this part.
CTDB1-A	N/A	40 CFR Part 60, Subpart GG	Stationary combustion turbines regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of subpart GG of this part.
CTDB1-A	N/A	40 CFR Part 63, Subpart DDDDD	A natural gas-fired EGU, as defined in MACT UUUUU, is not subject to MACT DDDDD if it is firing at least 85% natural gas on an annual heat input basis.
CTDB1-A	N/A	40 CFR Part 63, Subpart UUUUU	Natural gas-fired EGUs are not subject to MACT UUUUU.
CTDB1-B	N/A	40 CFR Part 60, Subpart Db	Heat recovery steam generators and duct burners regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of subparts Da, Db, and Dc of this part.
CTDB1-B	N/A	40 CFR Part 60, Subpart GG	Stationary combustion turbines regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of subpart GG of this part.
CTDB1-B	N/A	40 CFR Part 63, Subpart DDDDD	A natural gas-fired EGU, as defined in MACT UUUUU, is not subject to MACT DDDDD if it is firing at least 85% natural gas on an annual heat input basis.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
CTDB1-B	N/A	40 CFR Part 63, Subpart UUUUU	Natural gas-fired EGUs are not subject to MACT UUUUU.
CTDB2-A	N/A	40 CFR Part 60, Subpart Db	Heat recovery steam generators and duct burners regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of subparts Da, Db, and Dc of this part.
CTDB2-A	N/A	40 CFR Part 60, Subpart GG	Stationary combustion turbines regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of subpart GG of this part.
CTDB2-A	N/A	40 CFR Part 63, Subpart DDDDD	A natural gas-fired EGU, as defined in MACT UUUUU, is not subject to MACT DDDDD if it is firing at least 85% natural gas on an annual heat input basis.
CTDB2-A	N/A	40 CFR Part 63, Subpart UUUUU	Natural gas-fired EGUs are not subject to MACT UUUUU.
CTDB2-B	N/A	40 CFR Part 60, Subpart Db	Heat recovery steam generators and duct burners regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of subparts Da, Db, and Dc of this part.
CTDB2-B	N/A	40 CFR Part 60, Subpart GG	Stationary combustion turbines regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of subpart GG of this part.
CTDB2-B	N/A	40 CFR Part 63, Subpart DDDDD	A natural gas-fired EGU, as defined in MACT

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			UUUUU, is not subject to MACT DDDDD if it is firing at least 85% natural gas on an annual heat input basis.
CTDB2-B	N/A	40 CFR Part 63, Subpart UUUUU	Natural gas-fired EGUs are not subject to MACT UUUUU.

New Source Review Authorization References

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX1060	Issuance Date: 06/28/2016
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 77039	Issuance Date: 06/28/2016
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.122	Version No./Date: 09/04/2000
Number: 106.227	Version No./Date: 09/04/2000
Number: 106.263	Version No./Date: 09/04/2000
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.265	Version No./Date: 09/04/2000
Number: 106.452	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.471	Version No./Date: 09/04/2000
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.473	Version No./Date: 09/04/2000
Number: 106.532	Version No./Date: 09/04/2000

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
CTDB1-A	CT-HRSG UNIT 1-A	77039, PSDTX1060
CTDB1-B	CT-HRSG UNIT 1-B	77039, PSDTX1060
CTDB2-A	CT-HRSG UNIT 2-A	77039, PSDTX1060
CTDB2-B	CT-HRSG UNIT 2-B	77039, PSDTX1060
EG1	EMERGENCY GENERATOR UNIT 1	77039, PSDTX1060
EG2	EMERGENCY GENERATOR UNIT 2	77039, PSDTX1060
FWP1	FIREWATER PUMP UNIT 1	77039, PSDTX1060

Appendix A

Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM ..... actual cubic feet per minute
AMOC ..... alternate means of control
ARP ..... Acid Rain Program
ASTM ..... American Society of Testing and Materials
B/PA ..... Beaumont/Port Arthur (nonattainment area)
CAM ..... Compliance Assurance Monitoring
CD ..... control device
CEMS ..... continuous emissions monitoring system
CFR ..... Code of Federal Regulations
COMS ..... continuous opacity monitoring system
CVS ..... closed vent system
D/FW ..... Dallas/Fort Worth (nonattainment area)
EP ..... emission point
EPA ..... U.S. Environmental Protection Agency
EU ..... emission unit
FCAA Amendments ..... Federal Clean Air Act Amendments
FOP ..... federal operating permit
gr/100 scf ..... grains per 100 standard cubic feet
HAP ..... hazardous air pollutant
H/G/B ..... Houston/Galveston/Brazoria (nonattainment area)
H_2S ..... hydrogen sulfide
ID No. ..... identification number
lb/hr ..... pound(s) per hour
MACT ..... Maximum Achievable Control Technology (40 CFR Part 63)
MMBtu/hr ..... Million British thermal units per hour
NA ..... nonattainment
N/A ..... not applicable
NADB ..... National Allowance Data Base
NESHAP ..... National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
NO_x ..... nitrogen oxides
NSPS ..... New Source Performance Standard (40 CFR Part 60)
NSR ..... New Source Review
ORIS ..... Office of Regulatory Information Systems
Pb ..... lead
PBR ..... Permit By Rule
PEMS ..... predictive emissions monitoring system
PM ..... particulate matter
ppmv ..... parts per million by volume
PRO ..... process unit
PSD ..... prevention of significant deterioration
psia ..... pounds per square inch absolute
SIP ..... state implementation plan
SO_2 ..... sulfur dioxide
TCEQ ..... Texas Commission on Environmental Quality
TSP ..... total suspended particulate
TVP ..... true vapor pressure
U.S.C. ..... United States Code
VOC ..... volatile organic compound

Appendix B

Major NSR Summary Table

Permit Number: 77039 and PSDTX1060			Issuance Date: June 28, 2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (5)	Spec. Cond.	Spec. Cond.	Spec. Cond.
CTDB1-A	CT/HRSG Unit 1-A 75 MW Gas Turbine 110 MMBTU/hr Duct Burner (6)	NOx	22.6	81.5	3, 4, 8, 10, 12, 13, 15, 16, 17, 21	3, 4, 10, 12, 13, 15, 16, 17, 18, 19	10, 12, 13, 20
		NOx (MSS)	162				
		CO	70.1	252.5			
		CO (MSS)	1000				
		VOC	3.2	10.9			
		VOC (MSS)	60				
		SO2	1.87	6.8			
		PM	11.8	49.0			
		PM10	11.8	49.0			
		PM2.5	11.8	49.0			
		H2SO4	0.21	0.75			
		NH3	12.3	42.2			
		HCHO	0.4	1.28			
		Toluene	0.2	0.55			
CTDB1-B	CT/HRSG Unit 1-B 75 MW Gas Turbine 110 MMBTU/hr Duct Burner (6)	NOx	22.6	81.5	3, 4, 8, 10, 12, 13, 15, 16, 17, 21	3, 4,10, 12, 13, 15, 16, 17, 18, 19	10, 12, 13, 20
		NOx (MSS)	162				
		CO	70.1	252.5			
		CO (MSS)	1000				
		VOC	3.2	10.9			
		VOC (MSS)	60				
		SO2	1.87	6.8			
		PM	11.8	49.0			

Major NSR Summary Table

Permit Number: 77039 and PSDTX1060			Issuance Date: June 28, 2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (5)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		PM10	11.8	49.0			
		PM2.5	11.8	49.0			
		H2SO4	0.21	0.75			
		NH3	12.3	42.2			
		HCHO	0.4	1.28			
		Toluene	0.2	0.55			
CTDB2-A	CT/HRSG Unit 2-A 75 MW Gas Turbine 80 MMBTU/hr Duct Burner (6)	NOx	22.0	80.0	3, 4, 8, 10, 12, 13, 15, 16, 17, 21	3, 4, 10, 12, 13, 15, 16, 17, 18, 19	10, 12, 13, 20
		NOx (MSS)	162				
		CO	67.7	246.2			
		CO (MSS)	1000				
		VOC	2.9	10.1			
		VOC (MSS)	60				
		SO2	1.82	6.6			
		PM	11.4	48.0			
		PM10	11.4	48.0			
		PM2.5	11.4	48.0			
		H2SO4	0.3	0.75			
		NH3	12.3	41.4			
		HCHO	0.4	1.28			
		Toluene	0.2	0.55			
CTDB2-B	CT/HRSG Unit 2-B 75 MW Gas	NOx	22.0	80.0	3, 4, 8, 10, 12, 13, 15, 16, 17, 21	3, 4, 10, 12, 13, 15, 16, 17, 18,	10, 12, 13, 20
		NOx (MSS)	162				

Major NSR Summary Table

Permit Number: 77039 and PSDTX1060			Issuance Date: June 28, 2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (5)	Spec. Cond.	Spec. Cond.	Spec. Cond.
	Turbine 80 MMBTU/hr Duct Burner (6)	CO	67.7	246.2		19	
		CO (MSS)	1000				
		VOC	2.9	10.1			
		VOC (MSS)	60				
		SO2	1.82	6.6			
		PM	11.4	48.0			
		PM10	11.4	48.0			
		PM2.5	11.4	48.0			
		H2SO4	0.3	0.75			
		NH3	12.3	41.4			
		HCHO	0.4	1.28			
		Toluene	0.2	0.55			
EG1	Emergency Generator Unit 1	NOx	27.3	1.7	3	3, 19	20
		CO	7.25	0.5			
		SO2	0.43	0.03			
		PM	0.59	0.04			
		PM10	0.49	0.03			
		PM2.5	0.49	0.03			
		VOC	0.77	0.05			
EG2	Emergency Generator Unit 2	NOx	27.3	1.7	3	3, 19	20
		CO	7.25	0.5			
		SO2	0.43	0.03			

Major NSR Summary Table

Permit Number: 77039 and PSDTX1060			Issuance Date: June 28, 2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (5)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		PM	0.59	0.04			
		PM10	0.49	0.03			
		PM2.5	0.49	0.03			
		VOC	0.77	0.05			
FWP1	Fire Water Pump Unit 1	NOx	11.22	0.7	3	3, 19	20
		CO	2.42	0.2			
		SO2	0.13	0.01			
		PM	0.79	0.05			
		PM10	0.79	0.05			
		PM2.5	0.79	0.05			
		VOC	0.89	0.05			
CD1	Cooling Tower Cell 1	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			
		PM2.5	0.8	3.3			
CD2	Cooling Tower Cell 2		1.5	6.7	9	9, 19	9, 20
			0.8	3.3			
			0.8	3.3			
CD3	Cooling Tower Cell 3	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			
		PM2.5	0.8	3.3			
CD4	Cooling Tower Cell 4	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			

Major NSR Summary Table

Permit Number: 77039 and PSDTX1060				Issuance Date: June 28, 2016			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (5)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		PM2.5	0.8	3.3			
CD5	Cooling Tower Cell 5	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			
		PM2.5	0.8	3.3			
CD6	Cooling Tower Cell 6	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			
		PM2.5	0.8	3.3			
CD7	Cooling Tower Cell 7	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			
		PM2.5	0.8	3.3			
CD8	Cooling Tower Cell 8	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			
		PM2.5	0.8	3.3			
CD9	Cooling Tower Cell 9	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			
		PM2.5	0.8	3.3			
CD10	Cooling Tower Cell 10	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			
		PM2.5	0.8	3.3			
CD11	Cooling Tower Cell 11	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			
		PM2.5	0.8	3.3			

Major NSR Summary Table

Permit Number: 77039 and PSDTX1060			Issuance Date: June 28, 2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (5)	Spec. Cond.	Spec. Cond.	Spec. Cond.
CD12	Cooling Tower Cell 12	PM	1.5	6.7	9	9, 19	9, 20
		PM10	0.8	3.3			
		PM2.5	0.8	3.3			

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
NH_3 - ammonia
H_2SO_4 - sulfuric acid
HCHO - formaldehyde
(4) The allowable emission rates include planned maintenance, startup, and shutdown (MSS) activities. For each pollutant whose emissions during planned MSS activities are measured using a CEMS, the MSS lb/hr limits apply only during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.
(5) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(6) The 75 MW rating and 110 or 80 MMBtu/hr heat input are descriptive only and are not meant as enforceable limitations.

Texas Commission on Environmental Quality
Air Quality Permit

A Permit Is Hereby Issued To
Colorado Bend I Power, LLC
Authorizing the Continued Operation of
Colorado Bend Energy Center
Located at **Wharton, Wharton County, Texas**
Latitude 29° 17′ 16″ Longitude –96° 4′ 6″

Permits: 77039 and PSDTX1060
Issuance Date: June 28, 2016
Expiration Date: June 28, 2026

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)] [1]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling

facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] [1]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. [1]

[1] Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

Special Conditions

Permit Numbers 77039 and PSDTX1060

Emission Standards and Operating Specification

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates,") and those sources are limited to the emission limits and other conditions specified in that attached table. Compliance with the annual emission limits shall be based on throughput for a rolling 12-month year rather than the calendar year. This permit authorizes planned maintenance, startup, and shutdown (MSS) activities which comply with the emission limits in the maximum allowable emission rates table (MAERT).

   The following sources are authorized under Title 30 Texas Administrative Code Chapter 106 (30 TAC Chapter 106):

Permit By Rule	Permit by Rule (PBR) No.	Operation or Source Description
Dry Abrasive Cleaning	§106.452	Abrasive blasting
Degreasing Units	§106.454	Parts Washer

2. Each turbine's normal operating range is from 65 to 100 percent of base load except for periods of planned MSS and low load operation. Low load operation is defined as when the turbines are operating at less than 65 percent of base load. Cold startup events shall not exceed 300 minutes in duration. Warm startup events shall not exceed 180 minutes in duration. Shutdown events shall not exceed 60 minutes in duration. Planned maintenance events shall not exceed 480 minutes. A cold startup event is defined as a startup after a unit has received no fuel flow for a period of 24-hours or more. A warm startup is defined as a startup which is not a cold startup.

   Steam augmentation or low load operation below base load not associated with planned MSS is authorized, provided the maximum nitrogen oxides (NO_x) and carbon monoxide (CO) concentrations of this permit condition are not exceeded and provided the NO_x and CO maximum pounds per hour (lbs/hr) emission rates specified in the MAERT for Emission Point Nos. (EPNs) CTDB1-A, CTDB1-B, CTDB2-A, and CTDB2-B are not exceeded.

   A. The concentration of NOx and CO in the stack gases from each Turbine/Heat Recovery Steam Generator (HRSG) (EPNs CTDB1-A, CTDB1-B, CTDB2-A, and CTDB2-B) shall not exceed a three-hour rolling average concentration of five parts per million by volume (ppmvd) and 31 ppmvd, respectively. The NOx and CO concentrations measured by the continuous emissions monitoring system (CEMS) shall be corrected to 15 percent oxygen (O2). The NOx and CO concentrations of this

permit condition shall apply except during periods of planned MSS and low load operations.

B. The concentration of NO_x and CO in the stack gases from each Turbine/HRSG (EPNs CTDB1-A, CTDB1-B, CTDB2-A, and CTDB2-B) shall not exceed a three-hour rolling average concentration of five ppmvd and 35 ppmvd, respectively, during low load operations.

3. Fuel for the gas turbines and the HRSG duct burners authorized by this permit shall be limited to pipeline-quality, sweet natural gas containing no more than 5.0 grains total sulfur per 100 dry standard cubic feet (dscf) on an hourly basis, and 0.5 grain total sulfur per 100 dscf on an annual basis.

   The Firewater Pump and Emergency Diesel Generators (EPNs FWP1, EG1, and EG2) are authorized to fire diesel fuel containing no more than 0.05 weight percent sulfur and each are limited to a maximum of 120 non-emergency hours of operation annually.

4. Opacity of emissions from any one stack authorized by this permit shall not exceed 20 percent averaged over a six-minute period. Opacity of emissions from any stack having a total flow rate greater than or equal to 100,000 actual cubic feet per minute shall not exceed 15 percent. These determinations shall be made first by observing for visible emissions while each facility is in operation (includes normal operation and planned MSS). Observations shall be made at least 15 feet and no more than 0.25 mile from each emission point. If no visible emissions are observed from an emission point, then opacity measurements are not required. If visible emissions are observed from the emission point, then opacity shall be determined by Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Test Method 9. Contributions from uncombined water shall not be included in determining compliance with this condition. Observations shall be performed and recorded quarterly.

5. Upon request by the Executive Director of the Texas Commission on Environmental Quality (TCEQ) or any air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuel-fired in the gas turbines and duct burners or shall allow air pollution control agency representatives to obtain a sample for analysis.

Aqueous Ammonia (NH3)

6. Concentrations of NH_3 from EPNs CTDB1-A, CTDB1-B, CTDB2-A, and CTDB2-B shall not exceed 7 ppmvd when corrected to 15 percent O_2 on a one-hour rolling average.

7. The permit holder shall maintain prevention and protection measures for the NH_3 storage system which includes (but is not limited to) the following:

   A. The NH_3 storage tank area will be marked and secured so as to protect the NH_3 storage tank from accidents that could cause a rupture.

8. In addition to the requirements of Special Condition No. 7, the permit holder shall maintain the piping and valves in NH_3 service as follows:

   A. All operating practices and procedures relating to the handling and storage of NH_3 shall conform to the safety recommendations specified for that compound by guidelines of the American National Standards Institute and the Compressed Gas Association.

   B. Audio, olfactory, and visual checks for NH_3 leaks within the operating area shall be made every twelve hours.

   C. As soon as practicable, following the detection of a leak, plant personnel shall take one or more of the following actions:

      (1) Locate and isolate the leak, if necessary.

      (2) Commence repair or replacement of the leaking component.

      (3) Use a leak collection or containment system to control the leak until repair or replacement can be made if immediate repair is not possible.

Cooling Towers

9. The cooling tower cells CD1 through CD12 shall not exceed a total dissolved solids (TDS) concentration of 7,500 parts per million by weight (ppmw).

   A. A conservative default conversion factor of 0.80 (conductivity to TDS) may be used initially until a site specific demonstrated value is determined.

   B. The holder of this permit shall perform sampling to establish the conductivity to TDS conversion factor that shall be used by the permit holder to demonstrate compliance in accordance with Special Condition No. 9. A cooling water sample shall be collected in each of the three calendar months following the effective date of the permit and a conductivity and TDS analysis performed for each of the three samples in order to establish the actual cooling water conductivity to TDS conversion factor. The conductivity and TDS analyses shall be performed in accordance with "Standard Methods for the Examination of Water and Wastewater" Method 2510 (Conductivity)

and Method 2540 (Solids). An average conversion factor and standard deviation based on the three values shall be determined from the cooling water sample results.

The initial sampling required by this condition was completed on January 4, 2011.

C. Within 30 days after completion of the sampling, copies of the sampling report shall be submitted to the TCEQ Houston Regional Office.

D. Continuous compliance with the hourly and annual particulate matter emission rates for the Cooling Towers in the MAERT shall be demonstrated by the holder of this permit by monitoring the conductivity of the cooling water at a monitoring point in the recirculating water of each cooling tower, and recording these conductivity readings on a no less than weekly basis. Each conductivity measurement shall be converted to TDS concentration in ppmw using the conductivity to TDS conversion factor established in accordance with Special Condition No. 9(B). Compliance with the maximum TDS concentration shall be demonstrated by averaging the most recent four (4) weekly TDS concentrations.

Federal Applicability

10. These facilities shall comply with applicable requirements of the EPA regulations in 40 CFR Part 60 on Standards of Performance for New Stationary Sources promulgated for:

A. Applicable General Conditions, Subpart A.

B. The auxiliary boilers are subject to the applicable requirements of Subpart Dc, Standards of Performance for Small Industrial-Commercial Institutional Steam Generating Units.

C. The duct burners and gas turbines are subject to the applicable requirements of Subpart KKKK.

If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

Initial Determination of Compliance

11. Sampling ports and platforms shall be incorporated into the design of all exhaust stacks according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Houston Regional Director.

12. The holder of this permit shall perform stack sampling and other testing as required to establish the actual quantities of air contaminants being emitted into the atmosphere from EPNs CTDB1-A, CTDB1-B, CTDB2-A, and CTDB2-B. The holder of this permit shall perform stack sampling and other testing if requested by the TCEQ Houston Regional Director to establish the actual quantities of air contaminants being emitted into the atmosphere from EPNs AUX1, and AUX2. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with the appropriate EPA Reference Methods.

    Fuel sampling using the methods and procedures of 40 CFR § 60.334(h) may be conducted in lieu of stack sampling for sulfur dioxide (SO_2). If fuel sampling is used, compliance with New Source Performance Standards (NSPS), Subpart KKKK SO_2 limits shall be based on 100 percent conversion of the sulfur in the fuel to SO_2. Any deviations from those procedures must be approved by the Executive Director of the TCEQ prior to sampling. The TCEQ Executive Director or his designated representative shall be afforded the opportunity to observe all such sampling.

    The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

    A. The TCEQ Houston Regional Office shall be contacted as soon as testing is scheduled but not less than 30 days prior to sampling to schedule a pretest meeting. The notice shall include:

        (1) Date for pretest meeting.

        (2) Date sampling will occur.

        (3) Name of firm conducting sampling.

        (4) Type of sampling equipment to be used.

        (5) Method or procedure to be used in sampling.

        (6) Procedure used to determine turbine loads during and after the sampling period.

        The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

        A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Houston Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any air contaminant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for NSPS testing which must have EPA approval shall be submitted to the TCEQ Office of Air.

B. Air contaminants and diluents from the turbines to be sampled and analyzed include (but are not limited to) NO_x, CO, volatile organic compounds (VOC), SO_2, NH_3, formaldehyde, opacity, and O_2. [As noted above, fuel sampling using the methods and procedures of 40 CFR § 60.334(h) may be conducted in lieu of stack sampling for SO_2].

C. Each turbine shall be tested at a minimum and maximum load of the permitted operating range that is defined in Special Condition No. 2 for the atmospheric conditions which exist during testing. The duct burners shall be tested at their maximum firing rate while the turbine is operating as close to maximum load as possible. Each tested turbine load shall be identified in the sampling report. The permit holder shall present at the pretest meeting the manner in which stack sampling will be executed in order to demonstrate compliance with emission standards found in 40 CFR Part 60, Subpart KKKK.

D. Sampling as required by this condition shall occur within 60 days after achieving the maximum production but no later than 180 days after initial startup of each unit. Additional sampling shall occur as may be required by the TCEQ or EPA.

E. Within 60 days after the completion of the testing and sampling required herein, two copies of the sampling reports shall be distributed as follows:

One copy to the EPA Region 6 Office, Dallas.
One copy to the TCEQ Houston Regional Office.

The initial sampling required by this condition was completed in June, 2007.

Continuous Determination of Compliance

13. The holder of this permit shall install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of NO_x, CO, and diluent gases (O_2 or carbon dioxide [CO_2]), from each Exhaust Stack (EPNs CTDB1-A, CTDB1-B, CTDB2-A, and CTDB2-B).

A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or an acceptable alternative. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office

of Air, Air Permits Division in Austin for requirements to be met. The CEMS shall comply with the following requirements:

(1) The holder of this permit shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1, or an acceptable alternative.

(2) Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, § 5.2.3, and any CEMS downtime and all cylinder gas audit exceedances of ±15 percent accuracy shall be reported semiannually to the TCEQ Houston Regional Director, and necessary corrective action shall be taken.

(3) Supplemental stack concentration measurements may be required at the discretion of the TCEQ Houston Regional Director.

B. The monitoring data shall be reduced to hourly average values at least once everyday, using a minimum of four equally-spaced data points from each one-hour period. At least two valid data points shall be generated during the hourly period in which zero and span is performed.

C. All monitoring data and quality-assurance data shall be maintained by the source for a period of five years and shall be made available to the TCEQ Executive Director or designated representative upon request. The hourly average data from the CEMS may be used to determine compliance with the conditions of this permit. Hourly average concentrations from EPNs CTDB1-A, CTDB1-B, CTDB2-A, and CTDB2-B shall be summed to tons per year (TPY) each month and used to determine compliance with the emission limits of this permit.

D. The TCEQ Houston Regional Office shall be notified at least 21 days prior to any required relative accuracy test audit in order to provide them the opportunity to observe the testing.

E. If applicable, the CEMS for the turbines/duct burner stacks may be required to meet the design and performance specifications, pass the field tests, and meet the installation requirements and data analysis and reporting requirements specified in the applicable performance specifications in 40 CFR Part 75, Appendix A. The requirements of 40 CFR Part 75, Appendix A and B, respectively, are deemed an acceptable alternative to the performance specifications and quality assurance requirements of 40 CFR Part 60 for the NO_x and O_2 CEMS.

14. If any emission monitor fails to meet specified performance, it shall be repaired or replaced as soon as reasonably possible.

15. The holder of this permit shall additionally install, calibrate, maintain, and operate continuous monitoring systems to monitor and record the average hourly natural gas consumption of the gas turbines and the duct burners. The systems shall be accurate to ±5.0 percent of the unit's maximum flow.

16. The holder of this permit shall either measure, or develop a program to calculate, the total mass flow rate through the HRSG stacks to ensure continuous compliance with the emission limitations specified in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates." The permit holder shall calculate hourly mass emissions in lbs/hr using the measured or calculated exhaust flow rate and the measured concentrations of NO_x and CO from the CEMS required in Special Condition No. 13. The hourly calculated values will be cumulatively added during each hour of the month and stored on a computer hard drive and on computer disk or other TCEQ-accepted computer media. Records of this information shall also be available in a form suitable for inspection.

17. The NH_3 concentration in each Exhaust Stack (EPNs CTDB1-A, CTDB1-B, CTDB2-A, and CTDB2-B) shall be tested or calculated according to one of the methods listed below and shall be tested or calculated according to frequency listed below. Testing for NH_3 slip is only required on days when the selective catalytic reduction (SCR) unit is in operation.

    A. The holder of this permit may install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of NH_3. The NH_3 concentrations shall be corrected and reported in accordance with Special Condition No. 6.

    B. As an approved alternative, the NH_3 slip may be measured using a sorbent or stain tube device specific for NH_3 measurement in the 5 to 10 ppm range. The frequency of sorbent or stain tube testing shall be daily for the first 60 days of operation, after which, the frequency may be reduced to weekly testing if operating procedures have been developed to prevent excess amounts of NH_3 from being introduced in the SCR unit and when operation of the SCR unit has been proven successful with regard to controlling NH_3 slip. Daily sorbent or stain tube testing shall resume when the catalyst is within 30 days of its useful life expectancy. These results shall be recorded and used to determine compliance with Special Condition No. 6.

    C. As an approved alternative to sorbent or stain tube testing or an NH_3 CEMS, the permit holder may install and operate a second NO_x CEMS probe located between the duct burners and the SCR, upstream of the stack NO_x CEMS, which may be used in association with the SCR efficiency and NH_3 injection rate to estimate NH_3 slip. This condition shall not be construed to set a minimum NO_x reduction efficiency on the SCR unit. These results shall be recorded and used to determine compliance with Special Condition No. 6.

D. If the sorbent or stain tube testing indicates an ammonia slip concentration which exceeds 5 parts per million (ppm) at any time, the permit holder shall begin NH_3 testing by either the Phenol-Nitroprusside Method, the Indophenol Method, or EPA Conditional Test Method (CTM) 27 on a quarterly basis in addition to the weekly sorbent or stain tube testing. The quarterly testing shall continue until such time as the SCR unit catalyst is replaced; or if the quarterly testing indicates NH_3 slip is 4 ppm or less, the Phenol-Nitroprusside/Indophenol/CTM 27 tests may be suspended until sorbent or stain tube testing again indicate 5 ppm NH_3 slip or greater. These results shall be recorded and used to determine compliance with Special Condition No. 6.

E. As an approved alternative to sorbent or stain tube testing, NH_3 CEMS, or a second NO_x CEMS, the permit holder may install and operate a dual stream system of NO_x CEMS at the exit of the SCR. One of the exhaust streams would be routed, in an unconverted state, to one NO_x CEMS, and the other exhaust stream would be routed through a NH_3 converter to convert NH_3 to NO_x and then to a second NO_x CEMS. The NH_3 slip concentration shall be calculated from the delta between the two NO_x CEMS readings (converted and unconverted). These results shall be recorded and used to determine compliance with Special Condition No. 6.

F. Any other method used for measuring NH_3 slip shall require prior approval from the TCEQ Houston Regional Office.

Recordkeeping Requirements

18. The following records shall be kept at the plant for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ, EPA, or any air pollution control agency with jurisdiction.

A. A copy of this permit.

B. Permit application dated September 21, 2005, and subsequent representations submitted to the TCEQ.

C. A complete copy of the testing reports and records of the initial performance testing completed pursuant to Special Condition No. 12 to demonstrate initial compliance.

D. Stack sampling results or other air emissions testing (other than CEMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.

E. An MSS plan as required by Special Condition No. 21. The plan shall include detailed procedures for review of relevant operating parameters of the turbines, duct burners,

and associated air pollution control equipment during planned MSS events to make adjustments and corrections to reduce or eliminate any excess emissions, following manufacturer's recommendations as appropriate.

19. The following information shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made immediately available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction:

A. Records of visible emission/opacity observations as specified in Special Condition No. 4.

B. The NO_x, CO, and dilutant gases, O_2 or CO_2, CEMS emissions data to demonstrate compliance with the emission rates listed in the MAERT.

C. Raw data files of all CEMS data including calibration checks and adjustments and maintenance performed on these systems.

D. Records of the hours of operation of the firewater pump and emergency diesel generators.

E. Records of fuel sampling conducted pursuant to 40 CFR Part 60, Subpart KKKK.

F. Records of NH_3 emissions sampling and calculations pursuant to Special Condition No. 17.

G. Written records of any accidental releases, spills, or venting of NH_3 and the corrective action taken as required by 30 TAC § 101.201.

H. Written records of maintenance performed to any piping and valves in NH_3 service pursuant to Special Condition No. 8.

I. Records to identify the times when emissions data have been excluded from the calculation of average concentration because of planned MSS pursuant to Special Condition No. 2 along with the justification for excluding data.

J. The performance and emissions associated with each planned MSS activity. The rolling 12-month MSS emissions shall be updated on a monthly basis. These records shall include the following information:

(1) The physical location at which emissions from the planned MSS activity occurred, including the EPN, common name and any other identifier for the point at which the emissions were released into the atmosphere;

(2) The type of planned MSS activity and the reason for the planned activity;

(3) The common name and the facility identification number of the facilities at which the planned MSS activity and emissions occurred;

(4) The date and time of the planned MSS activity and its duration;

(5) The estimated quantity of each air contaminant or mixture of air contaminants emitted along with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the planned MSS permit application, PI-1 dated September 23, 2009, consistent with good engineering practice. These emissions are subject to the limits in the MAERT.

K. The cooling tower monitoring data required by Special Condition No. 9 including:

(1) Location of the monitoring point for the cooling tower recirculating water and date and time of monitoring.

(2) Weekly measured conductivity in ohms and the equivalent TDS in parts per million in the recirculating water of the cooling tower.

Reporting

20. The holder of this permit shall submit to the TCEQ Houston Regional Office and the Air Enforcement Branch of the EPA in Dallas semiannual reports as described in 40 CFR § 60.7. Such reports are required for each emission unit which is required to be continuously monitored pursuant to this permit.

Startup and Shut Down

21. The holder of this permit shall operate the turbines and associated air pollution control equipment in accordance with Special Condition No. 2 and good air pollution control practice to minimize emissions during planned MSS, by operating in accordance with a written MSS plan. Emissions from combustion turbine diagnostic load reduction activities as identified in Attachment A, shall be subject to the hourly MSS emission rates listed on the MAERT and shall not exceed 54 hours per calendar year for all gas turbines combined.

Attachment A

Permit Numbers 77039 and PSDTX1060

Planned Maintenance Activities							
Planned Maintenance Activity	EPN	Emissions					
		NO_x	CO	VOC	PM	SO_2	NH_3
Combustion Turbine Optimization[1,3]	CTDB1-A, CTDB1-B, CTDB2-A, CTDB2-B	X	X	X	X	X	X
Diagnostic Load Reduction Activities[2,3]	CTDB1-A, CTDB1-B, CTDB2-A, CTDB2-B	X	X	X	X	X	X
SCR Maintenance, Unit On-Line[3]	CTDB1-A, CTDB1-B, CTDB2-A, CTDB2-B	X					X

Date: June 28, 2016

[1] Includes, but is not limited to, (i) leak and operability checks (e.g., turbine over-speed tests, troubleshooting), (ii) balancing, and (iii) tuning activities that occur during seasonal tuning or after the completion of initial construction, a combustor change-out, a major repair, maintenance to a combustor, or other similar circumstances.

[2] Includes, but is not limited to combustion turbine load reductions (runbacks) associated with: initiation of steam turbine operation, low load steam turbine operation, variability in water or fuel supply, electric generator protection, and variation in turbine operations (including but not limited to, combustor flashback, primary combustion zone re-ignition, or combustion exhaust blade path spread)

[3] Hourly emissions from these activities will be subject to the hourly emission limit for maintenance, startup, and shutdown activities from gas turbines listed on the MAERT.

Emission Sources - Maximum Allowable Emission Rates

Permit Number 77039 and PSDTX1060

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)	
			lbs/hour	TPY (5)
CTDB1-A	CT/HRSG Unit 1-A 75 MW Gas Turbine 110 MMBtu/hr Duct Burner (6)	NO_x	22.6	81.5
		NO_x (MSS)	162	
		CO	70.1	252.5
		CO (MSS)	1000	
		VOC	3.2	10.9
		VOC (MSS)	60	
		SO_2	1.87	6.8
		PM	11.8	49.0
		PM_{10}	11.8	49.0
		$PM_{2.5}$	11.8	49.0
		H_2SO_4	0.21	0.75
		NH_3	12.3	42.2
		HCHO	0.4	1.28
		Toluene	0.2	0.55

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)	
			lbs/hour	TPY (5)
CTDB1-B	CT/HRSG Unit 1-B 75 MW Gas Turbine 110 MMBtu/hr Duct Burner (6)	NO_x	22.6	81.5
		NO_x (MSS)	162	
		CO	70.1	252.5
		CO (MSS)	1000	
		VOC	3.2	10.9
		VOC (MSS)	60	
		SO_2	1.87	6.8
		PM	11.8	49.0
		PM_{10}	11.8	49.0
		$PM_{2.5}$	11.8	49.0
		H_2SO_4	0.21	0.75
		NH_3	12.3	42.2
		HCHO	0.4	1.28
		Toluene	0.2	0.55
CTDB2-A	CT/HRSG Unit 2-A 75 MW Gas Turbine 80 MMBtu/hr Duct Burner (6)	NO_x	22.0	80.0
		NO_x (MSS)	162	
		CO	67.7	246.2
		CO (MSS)	1000	
		VOC	2.9	10.1
		VOC (MSS)	60	
		SO_2	1.82	6.6
		PM	11.4	48.0
		PM_{10}	11.4	48.0
		$PM_{2.5}$	11.4	48.0
		H_2SO_4	0.3	0.75
		NH_3	12.3	41.4
		HCHO	0.4	1.28
		Toluene	0.2	0.55

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)	
			lbs/hour	TPY (5)
CTDB2-B	CT/HRSG Unit 2-B 75 MW Gas Turbine 80 MMBtu/hr Duct Burner (6)	NO_x	22.0	80.0
		NO_x (MSS)	162	
		CO	67.7	246.2
		CO (MSS)	1000	
		VOC	2.9	10.1
		VOC (MSS)	60	
		SO_2	1.82	6.6
		PM	11.4	48.0
		PM_{10}	11.4	48.0
		$PM_{2.5}$	11.4	48.0
		H_2SO_4	0.3	0.75
		NH_3	12.3	41.4
		HCHO	0.4	1.28
		Toluene	0.2	0.55
EG1	Emergency Generator Unit 1	NO_x	27.3	1.7
		CO	7.25	0.5
		SO_2	0.43	0.03
		PM	0.59	0.04
		PM_{10}	0.49	0.03
		$PM_{2.5}$	0.49	0.03
		VOC	0.77	0.05
EG2	Emergency Generator Unit 2	NO_x	27.3	1.7
		CO	7.25	0.50
		SO_2	0.43	0.03
		PM	0.59	0.04
		PM_{10}	0.49	0.03
		$PM_{2.5}$	0.49	0.03
		VOC	0.77	0.05

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)	
			lbs/hour	TPY (5)
FWP1	Fire Water Pump Unit 1	NO_x	11.22	0.7
		CO	2.42	0.2
		SO_2	0.13	0.01
		PM	0.79	0.05
		PM_{10}	0.79	0.05
		$PM_{2.5}$	0.79	0.05
		VOC	0.89	0.05
CD1	Cooling Tower Cell 1	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3
CD2	Cooling Tower Cell 2	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3
CD3	Cooling Tower Cell 3	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3
CD4	Cooling Tower Cell 4	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3
CD5	Cooling Tower Cell 5	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3
CD6	Cooling Tower Cell 6	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3
CD7	Cooling Tower Cell 7	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)	
			lbs/hour	TPY (5)
CD8	Cooling Tower Cell 8	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3
CD9	Cooling Tower Cell 9	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3
CD10	Cooling Tower Cell 10	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3
CD11	Cooling Tower Cell 11	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3
CD12	Cooling Tower Cell 12	PM	1.5	6.7
		PM_{10}	0.8	3.3
		$PM_{2.5}$	0.8	3.3

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
NH_3 - ammonia
H_2SO_4 - sulfuric acid
HCHO - formaldehyde
(4) The allowable emission rates include planned maintenance, startup, and shutdown (MSS) activities. For each pollutant whose emissions during planned MSS activities are measured using a CEMS, the MSS lb/hr limits apply only during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.
(5) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(6) The 75 MW rating and 110 or 80 MMBtu/hr heat input are descriptive only and are not meant as enforceable limitations.

Date: June 28, 2016